

Year: 9

Topic: Primary & Secondary Storage

(P) Practical

(T) Theory

(3) Denotes number of lessons

Lesson Sequence

(T) Primary & Secondary Storage **(3)**

Core Texts

AQA Computer Science, Alison Page, 2013

AQA Computer Science, Robson & Heathcote, 2016

<http://www.Visualstudio.com>
(free software download)

Key Words:

Primary Storage	RAM & ROM	Cloud Storage	Dropbox / One drive /Google Drive
ROM	Read only Memory	Solid State	Flash Memory includes solid state drives /SD cards etc
RAM	Random Access Memory	Virtual Memory	Uses part of secondary storage as extra RAM
Magnetic	Hard disk drive / Magnetic tape	Optical	CD / DVD / Blu-ray
BIOS	Basic input output system		

Primary Storage

RAM is volatile – information is lost when the device loses power (the computer is switched off)
ROM is non-volatile – no new information can be written to ROM – contains BIOS information



Secondary storage is required so that data can be stored permanently

Three main types: Magnetic,

Optical,

Solid State



All types have advantages and disadvantages

Optical – Read by a laser (reads the pits and lands on the surface of the disk)

Magnetic – An arm places magnetic charges onto the platter (positive or negative)

SSD – Reads the electronic signals within microscopic transistors

Quantity	Size	Comment
1 kilobyte (kB)	1024 bytes	Even a short typed document will use several kilobytes of memory.
1 megabyte (MB)	1024 kilobytes	One digital photo may use several megabytes of memory, depending on how large and detailed it is.
1 gigabyte (GB)	1024 megabytes	Could hold a large collection of images and documents, 16 hours of MP3 songs (1mb per minute)
1 terabyte (TB)	1024 gigabytes	16500 hours of MP3 (690 days)